INSTRUCTION MANUAL

TEN YARD FIGHT '85™

ATTACK OF THE ...

SAVAGE BEE'S ™

... FROM ANOTHER PLANET !

MEMETRON INC.
2350 BRICKVALE DR.
ELKGROVE VILLAGE, IL. 60007
312-593-3020

May 14, 1985

Dear Operator:

We hope you will be pleased with your purchase of Nametrons first hit kits. From information we have gathered from our extensive field testing, we are confident that, once you place these games on location you will be excited by the player response as we are that your investment on a Nametron product will give you a solid return on your hard-earned dollars.

Nametron is committed to provide the coin op industry with innovative price competitive equipment. Nametron currently markets products designed for the arcades, wall boxes, for music operators and expects to continue to license other new products in the near future.

Sincerely,

Joe Kaminkow
Director of Marketing
Nametron Inc.

VIDEO GAME OPERATORS

Don't Get Involved In A Federal Crime. Don't Buy Or Operate Copy Or Unauthorized Boards In Your Games.

Warning

Every operator who buys or operates a counterfeit or unauthorized board (imported or domestic) is contributing to the end of our industry and committing a FEDERAL CRIME.

New criminal laws have recently been enacted that provide for maximum penalties of $250,000 or five years in prison or both, per offense. EACH GAME IS A SEPARATE OFFENSE.

DON'T GET INVOLVED IN THIS CRIMINAL ACT.

FBI **WARNING**

If you have any information about any unauthorized games in the United States, contact your local FBI or,

American Amusement Machine Association

205 The Strand
Suite 3
Alexandria, Virginia 22314
(703) 548-8044

All information will be treated in confidence.

IMPORTANT
F.C.C WARNING

"This Kit is intended for use only on coin operated video games manufactured after October 1, 1983, which have been verified for compliance with the requirements in Part 15 of FCC rule for class A computing device. Improper connection of this kit or connection to any other coin operated video game not so manufactured or verified for compliance may cause unacceptable interference to radio and tv reception requiring the operator to make necessary to correct the interference. Memetron Inc., takes no responsibility for kits improperly connected and those connected to games for which use is not intended."

warnings & notices

WARNING

For safety and reliability, Memetron does not recommend or authorize any substitute parts or modifications of Memetron equipment.

Use of non-Memetron parts and modifications of game circuitry may adversely affect game performance.

Substitute parts or equipment modifications may void FCC type-acceptance.

Since this game is protected by Federal copyright, trademark and patent laws, unauthorized game-conversions may be illegal under Federal Law.

This " conversion" principle also applies to unauthorized facsimiles of Memetron equipment, logos, designs, publications, assemblies and games (or features not deemed to be in the public domain), whether manufactured with Memetron components or not.

Warning

Three-Wire Plug. This game must be plugged into a properly-grounded outlet to prevent shock hazard and to assure proper game operation. Do Not use a " cheater" plug to defeat the ground pin on the power cord, and do not cut off the ground pin.

NOTICE

Parts salvaged from your old game are required to complete your kit. These salvaged parts MUST operate perfectly, or the converted game cannot perform properly of safely. Always repair circuitboard malfunctions and cabinet damage before conversion is attempted

NOTICE

This kit is not intended for use with X-Y monitors. Suitable monitors are the horizontal or verticle raster-type with inputs for red, green and blue video as well as negative sync. (These inputs should be compatiable with TTl logic levels.) Note: Savage Bees uses a verticle monitor, Ten Yard Fight'85 uses a horizontal monitor.

NOTICE

Be sure the power supply from your old game is capable of +5VDC, +5VDC at 6A and +12VDC at 1A. These operating voltages are necessary for your Kit.

NOTICE

SAVAGE BEES & 'TEN YARD FIGHT '85' are registered trademarks of Memetron Inc., 1985.

NOTICE

Please make sure you clean and lubricate your old coin mechaniams. It is important that you service them in order for this game to earn the maximum projected earnings.

Hit Kit Parts Provided

[] CPU Board	(1)
[] Joystick(s)	(S2,T1)
[] Control-panel overlay	(1)
[] Marquee overlay	(1)
[] Side Graphics	(2)
[] Wiring harness	(1)
[] Instructions	(1)
[] Play instructions	(1)
[] FCC sticker	(1)
[] Misc. control stickers	(NA)
[] Mounting screws	(4)
[] Drilling template	(1)
[] Joystick star	(S2,T1)
[] Promotional sticker	(1)
[] PCB Mounting blocks	(4)

TOOLS AND SUPPLIES REQUIRED

[] Electric screwdriver
[] Wire Cutters
[] Electric drill
[] Soldering iorn & solder
[] Pliers
[] Phillips screwdriver
[] Hex driver
[] 180-grit sandpaper (sander)
[] Navy blue, semi-gloss latex paint
[] Grease pencil or marker

After the control panel is securely on, with an exacto knife or razor blade carefully cut out holes on the control panel. Next stick the joystick stars and button stickers on the control panel. Replace your buttons on the control panel and tighten them down. Return the control panel to the game for the next step in the kit process.

NOTICE

Refer to the decal layout sheet for more information on graphics position.

Refer to the control panel template for control layout suggestions.

If the control panel that you are going to use is wood and is too thick for use with the enclosed button holders, than remove the switches from the holders and shim them with spacers.

WIRING PROCEDURES
INSTALLING INTERBOARD WIRING

[] Disconnect the old wiring harness from the CPU board. Using the schematic drawings from your old game, carefully note the function of each wire. Label the wires if this helps.

[] Carefully remove all circuitboards and the metal circuitboard panel from the game. Leave the transformer chassis and the power supply braid in the game. .

[] Leaving several inches of wire from the old wiring harness at each connector , cut the wires near the game's coin door, moniter, player panel, power supply and speaker. DONT cut the other side of these same wires (that is at the CPU-board end).

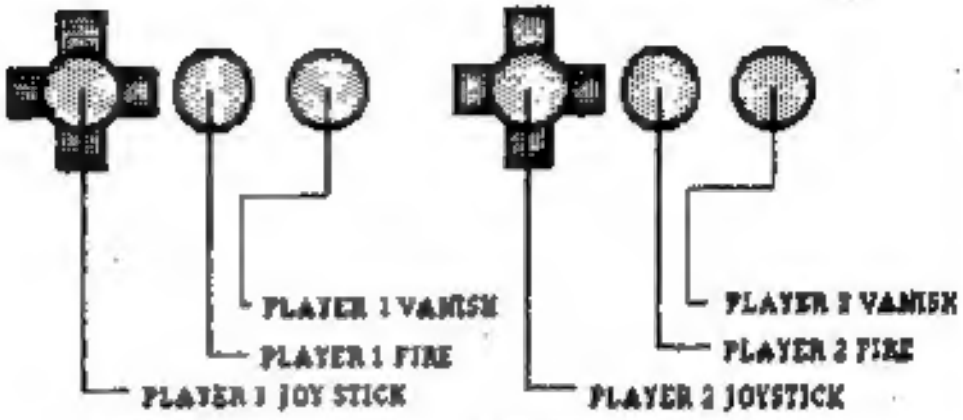
[] Following the schematic drawings for your kit, solder the coin-door, moniter, control panel, power-supply and speaker wires to the new CPU-board harness. Using electrical tape, be sure to insulate all splices.

[] If your game has series-pass transistors for the power supply on a separate heatsink, remount the metal heatsink beside the power supply board.

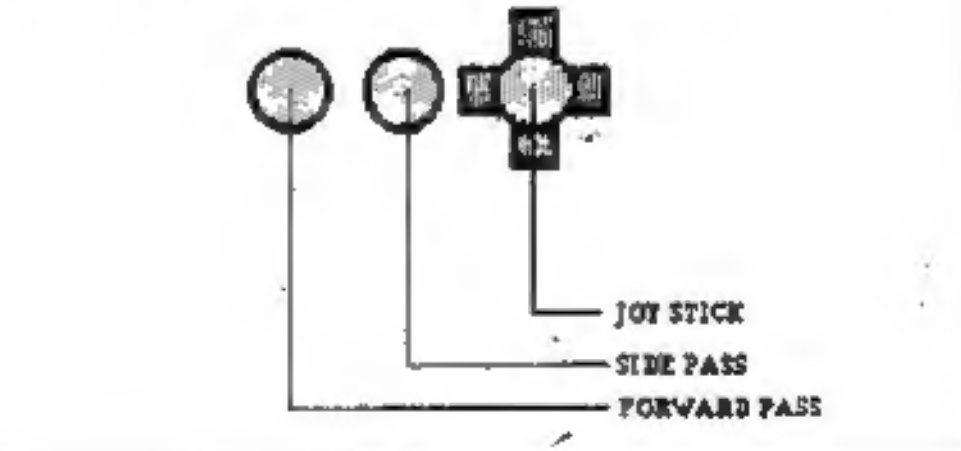
[] Check and clean the input jack on the power-supply board. Replace any burned or damaged pins

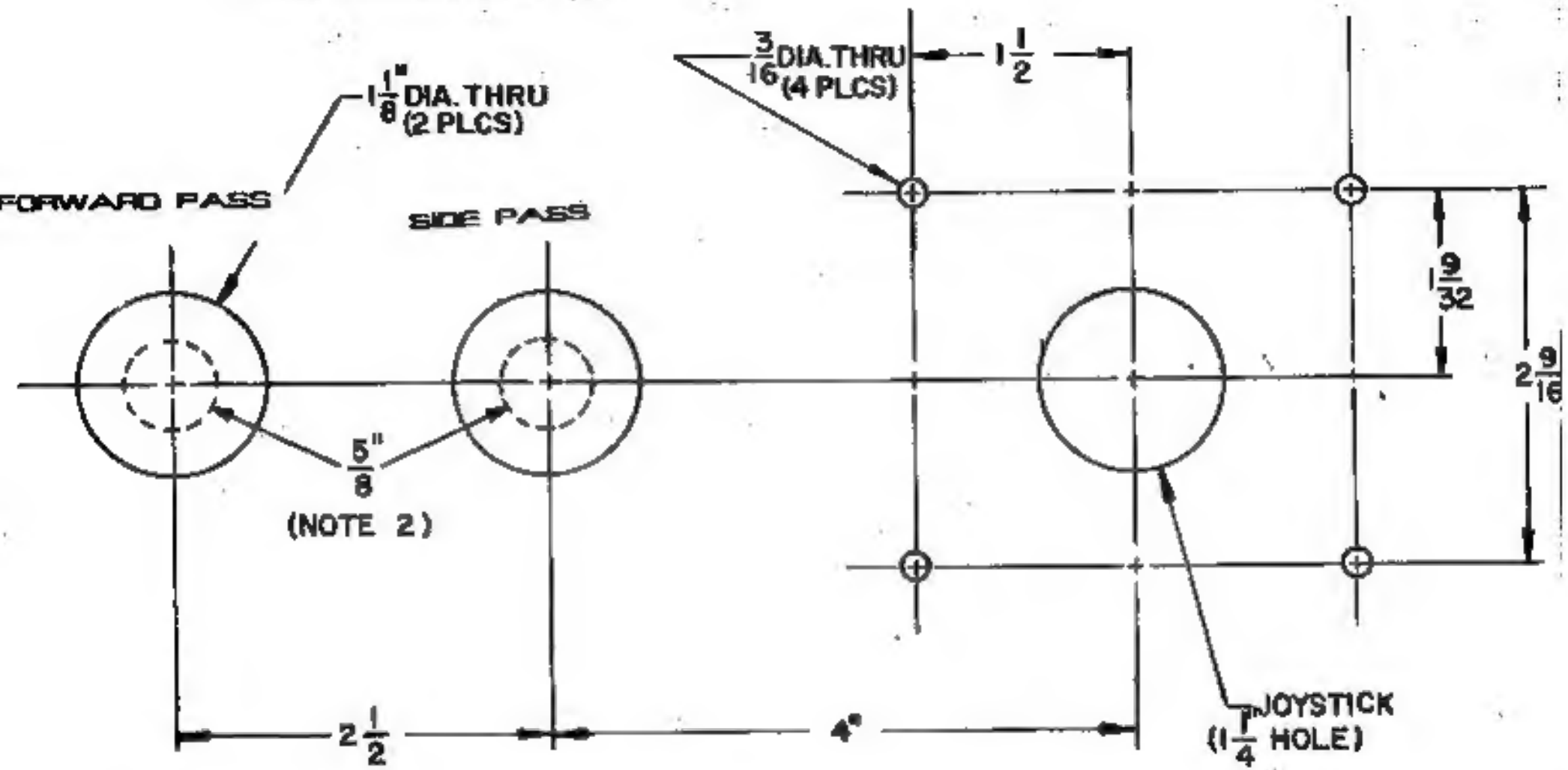
THANK YOU FOR THE PURCHASE OF A MEMETRON HIT KIT !

SAVAGE BEES CONTROL PANEL



TEN YARD FIGHT '85 CONTROL PANEL

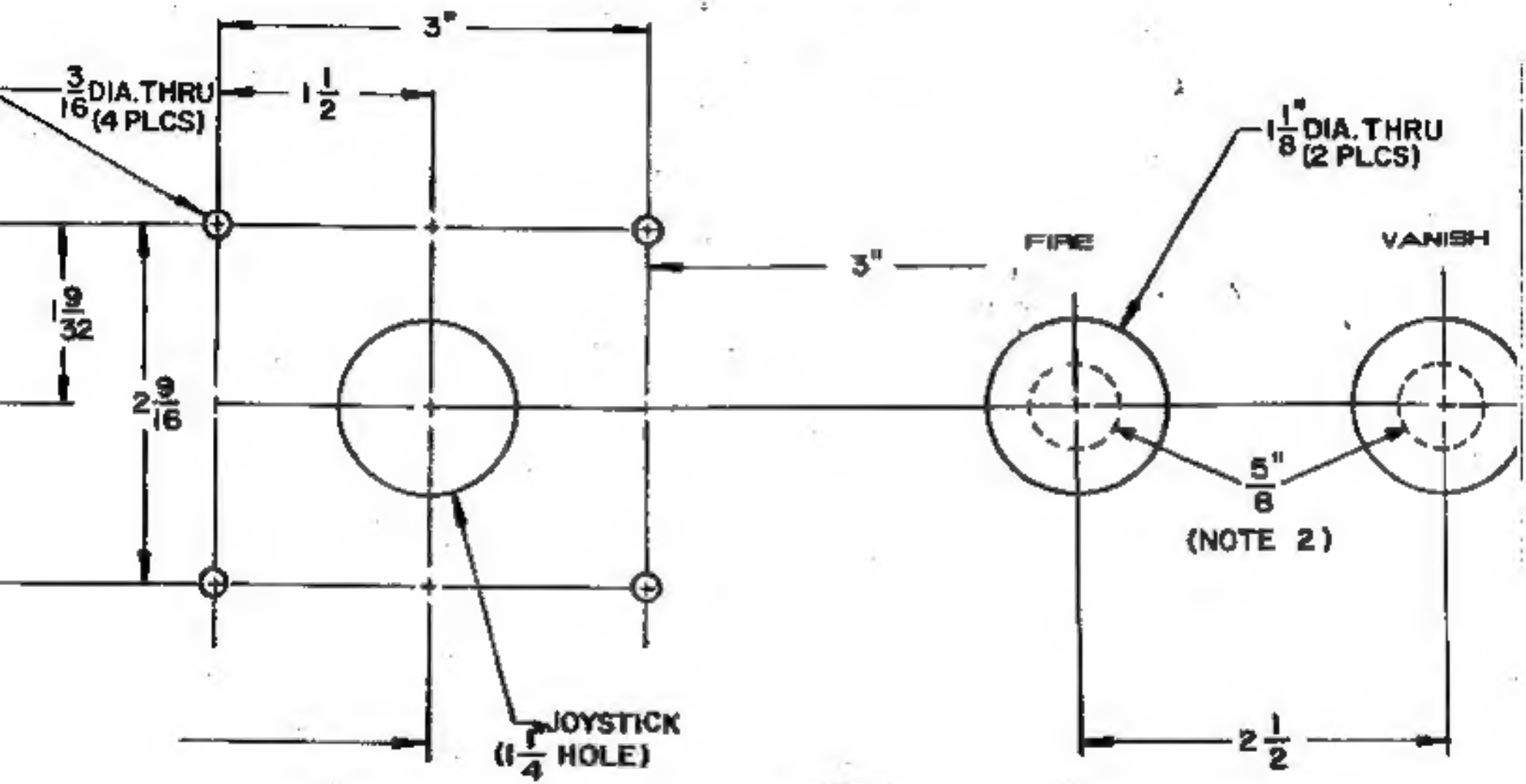




NOTE:

1. THESE DIMENSIONS ARE TO SCALE AND REFER TO METAL CONTROL PANELS.
2. FOR WOOD CONTROL PANELS, DRILL 5/8" HOLE COMPLETELY THROUGH. THEN DRILL 1-1/8" HOLE TO 5/16" DEPTH.

CONTROL PLATE TEMPLATE



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MAIN HARNESS

10-YARD FIGHT

KIT CONVERSION

GA	FUNCTION	WIRE / COLOR	PIN		WIRE / COLOR	FUNCTION	GA.
18	GND	GRN	A	1	GRN	GND	18
18	GND	GRN	B	2		GND N/C	
			C	3			
			D	4	BLK WHT	LEFT COIN CNTR.	22
	2pl left	gray	E	5	BRN	JOYSTICK LEFT	22
	2pl right	white	F	6	BRN WHT	JOYSTICK RIGHT	22
	2pl Side Pass	blue	H	7	BLK	SIDE PASS	22
22	1 PLAYER	GRY	J	8	ORG WHT	2 PLAYER	22
22	RIGHT COIN CNTR.	BLU RED	K	9			
22	NEG. SYNC	WHT	L	10	BLU WHT	COIN SW RIGHT	22
18	+12	YEL RED	M	11	YEL RED	+12	18
			N	12			
22	AUDIO +	WHT RED	P	13	VIO	AUDIO -	22
2	pl For Pass	red	R	14	WHT BLU	FORWARD PASS	22
22	VIDEO GREEN	GREEN	S	15	RED	VIDEO RED	22
			T	16	BLUE	VIDEO BLUE	22
	2pl [illegible]	[illegible]	U	17	orange	2pl [illegible] up	
22	JOYSTICK DOWN	GRY WHT	V	18	ORG	JOYSTICK UP	22
22	COIN SW. LEFT	RED WHT	W	19	YEL RED	SERVICE SW.	22
18	+5	RED	X	20	RED	+5	18
			Y	21			
18	GND	GRN	Z	22	GRN	GND	18

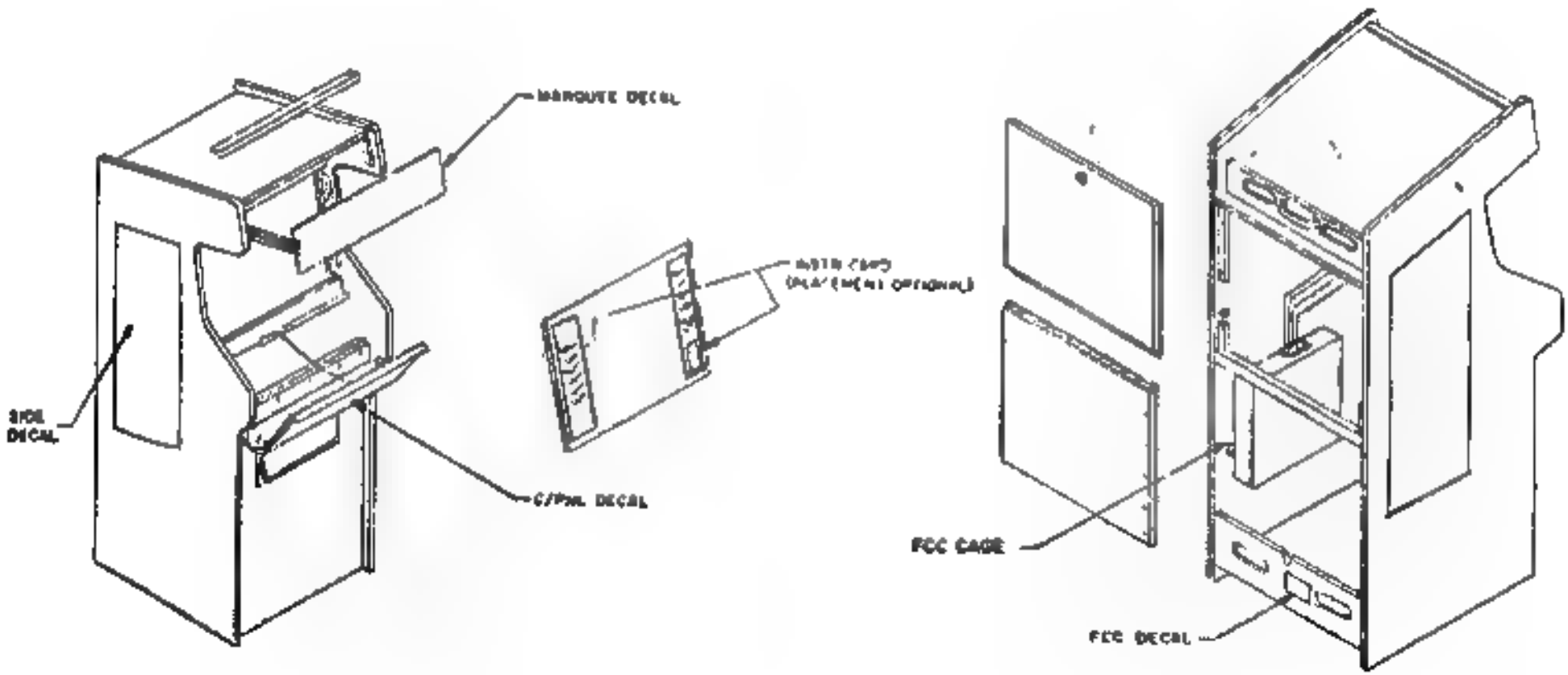
COMPONENT SIDE

SAVAGE BEES KIT
MAIN CABLE

GA.	COLOR	FUNCTION	PIN	PIN	FUNCTION	COLOR	GA.
18	GRN	GND	A	1	GND	GRN	18
18	GRN	GND	B	2	GND	GRN	18
18	RED	+5	C	3	+5	RED	18
18	RED	+5	D	4	+5	RED	18
22	GREEN	VIDEO	E	5	VIDEO	RED	22
22	WHT	NEG SYNC	F	6	VIDEO	BLUE	22
18	GRN	GND	H	7	GND	GRN	18
			J	8			
22	ORG	SHOT 2	K	9	SHOT 2	ORG	22
22	YEL RED	SHOT 1	L	10	SHOT 1	YEL RED	22
22	GRY	2 PLAYER - UP 1	M	11	UP 1 - 1 PLAYER	GRY	22
22	VIO	DOWN 1	N	12	DOWN 1	VIO	22
22	ORG WHT	LEFT 1	P	13	LEFT 1	ORG WHT	22
22	BLU WHT	RIGHT 1	R	14	RIGHT 1	BLU WHT	22
18	GRN	GND	S	15	GND	GRN	18
		2 PLAYER START	T	16	1 PLAYER START	WHT RED	22
22	GRY WHT	SERVICE	U	17			
22	WHT BLU	COIN 2	V	18	COIN 1	RED WHT	22
18	GRN	GND	W	19	GND	GRN	18
			X	20			
			Y	21	-		
22	BLK	+12 COMMON	Z	22	+12 COMMON	BLK	22
22	WHT	CNTR 2	a	23	CNTR 1	GRN	22
22	BLU	SPKR -	b	24	SPKR +	RED	22
18	YEL RED	+12	c	25	+12	YEL RED	18
22	BRN	+12 GND	d	26	+12 GND	BRN	22
18	GRN	GND	e	27	GND	GRN	18
18	GRN	GND	f	28	GND	GRN	18

COMPONENT SIDE

DECAL LOCATIONS



"10-YARD FIGHT"

DIP SWITCH 1

OPTIONS	SWITCHES	1	2	3	4	5	6	7	8
TIMER SPEED BETWEEN PLAYS	NORMAL			OFF	OFF				
	X1.3			ON	OFF				
	X1.5			OFF	ON				
	X1.8			ON	ON				
COIN MODE (SEE NOTE) MODE 2 DIP SWITCH 2 POSITION 3 ON — COIN SELECTOR A	1 COIN/1 PLAY		ALWAYS OFF			OFF	OFF		
	2 COINS/1 PLAY					ON	OFF		
	3 COINS/1 PLAY					OFF	ON		
	FREE PLAY					ON	ON		
COIN SELECTOR B	1 COIN/2 PLAYS							OFF	OFF
	1 COIN/3 PLAYS							ON	OFF
	1 COIN/5 PLAYS							OFF	ON
	1 COIN/6 PLAYS							ON	ON
MODE 1 DIP SWITCH 2 POSTION 3 OFF	1 COIN/1 PLAY					OFF	OFF	OFF	OFF
	2 COINS/1 PLAY					ON	OFF	OFF	OFF
	3 COINS/1 PLAY					OFF	ON	OFF	OFF
	4 COINS/1 PLAY					ON	ON	OFF	OFF
	5 COINS/1 PLAY					OFF	OFF	ON	OFF
	6 COINS/1 PLAY					ON	OFF	ON	OFF
	1 COIN/2 PLAYS					OFF	OFF	OFF	ON
	1 COIN/3 PLAYS					ON	OFF	OFF	ON
	1 COIN/4 PLAYS					OFF	ON	OFF	ON
	1 COIN/5 PLAYS					ON	ON	OFF	ON
	1 COIN/6 PLAYS					OFF	OFF	ON	ON
	FREE PLAY					ON	ON	ON	ON
CONTINUED PLAY	YES	ON							
	NO	OFF							

Note: Set for Coin Mode 1 in case a single coin selector or two selectors of the same coin value are used.
Set for Coin Mode 2 in case two coin selectors of different coin values are used.

DIP SWITCH 2

OPTIONS	SWITCHES	1	2	3	4	5	6	7	8
SCREEN INVERSION	PLAYER 2	OFF			ALWAYS OFF		ALWAYS OFF		
	PLAYER 1	ON							
CABINET TYPE	TT		OFF						
	UPRIGHT		ON						
COIN MODE	MODE 1			OFF					
	MODE 2			ON					
FREEZE PICTURE	NORMAL					OFF			
	FREEZE					ON			
HIT MODE	NORMAL							OFF	
	NO HIT							ON	
TEST MODE	NORMAL								OFF
	TEST								ON

NOTE: Press 2P start button to freeze picture. Press 1P start button to let it move again.

DIP SWITCH

DIP SW A

ITEM	DESCRIPTION	1	2	3	4	5	6	7	8
TEST MODE	NORMAL	OFF *							
	TEST	ON							
PORTRAIT STOP	NORMAL		OFF *						
	STOP		ON						
JAPAN	JAPANESE LANGUAGE			OFF					
FOREIGN	ENGLISH LANGUAGE			ON *					
1P/2P PLAY FEE	1P/1 COIN, 2P/2 COINS				OFF *				
	COMMON FEE				ON				
NUMBER OF PLAYER	3					OFF	OFF *		
	1					OFF	ON		
	2					ON	OFF		
	5					ON	ON		
BONUS PLAYER	50T-100T-250T-500T-750T							OFF *	OFF *
	100T-250T-500T-750T-1000T							OFF	ON
	100T-250T-500T-1000T-2000T							ON	OFF
	200T-500T-1000T-2000T							ON	ON

T= THOUSAND

ITEM	DESCRIPTION	1	2	3	4	5	6	7	8
DEMO SOUND	WITH SOUND	OFF *							
	WITHOUT SOUND	ON							
CONTINUE MODE	CONTINUE		OFF *						
	DISCONTINUE		ON						
COIN 2	1 CREDIT - 1 COIN			OFF *	OFF *	OFF *			
	2 CREDIT - 1 COIN			OFF	OFF	ON			
	3 CREDIT - 1 COIN			OFF	ON	OFF			
	4 CREDIT - 1 COIN			OFF	ON	ON			
	5 CREDIT - 1 COIN			ON	OFF	OFF			
	1 CREDIT - 2 COINS			ON	OFF	ON			
	1 CREDIT - 3 COINS			ON	ON	OFF			
	1 CREDIT - 4 COINS			ON	ON	ON			
COIN 1	SAME AS COIN 2						SAME AS 3,4,5		

JOYSTICK ASSEMBLY

1. Refer to FIG. 1 before starting installation.

2. For normal replacement of Ball Handle, Spring and/or Switch Actuator, disregard steps 3, 4, and 5 below.

INSTALLATION INSTRUCTIONS

1. From inside of game, remove E-ring from Ball Handle Shaft.

2. Pull Ball Handle out of Joystick Assembly and remove Switch Actuator and Spring from inside of game.

3. Remove Joystick Assembly from Control Panel of game.

4. Replace 2" washer.

5. Fasten Joystick Assembly to Control Panel of game.

6. Insert new Ball Handle through Control Panel and Joystick Assembly.

7. From inside the game, push Spring and appropriate Switch Actuator over end of Ball Handle Shaft and secure with E-ring.

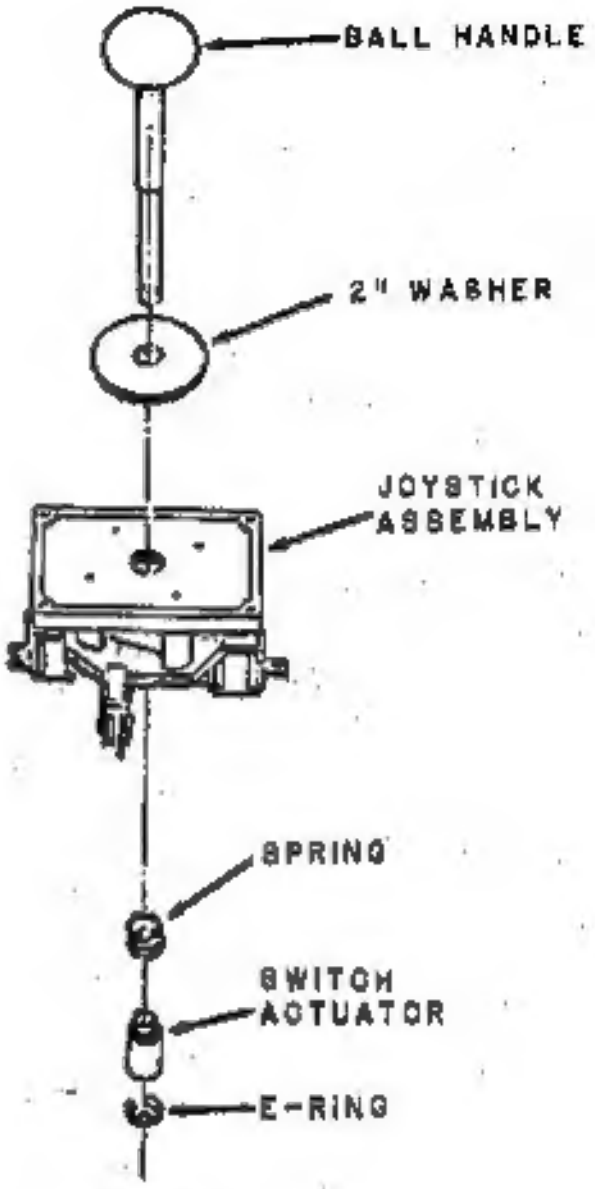


FIGURE 1

SORRY WERE OUT OF STOCK !

MEMETRON HAS TEMPORARILY RUN OUT OF FCC CAGES. OUR PARTS DEPARTMENT WILL SHIP AN FCC CAGE TO YOU UPON RECIPT OF THE ATTACHED FORM. THEY WILL BE IN STOCK AS OF JUNE 10, 1985. WE ARE SORRY FOR ANY INCONVENIENCE WE MAY HAVE CAUSED YOU.

TO RECEIVE YOUR FCC CAGE PLEASE MAIL THE FOLLOWING FORM TO: MEMETRON INC.
2350 BRICKVALE DRIVE
ELK GROVE VILLAGE, IL 60007
312-595-2828

COMPANY NAME
YOUR NAME
ADDRESS
PHONE ( ) -
KIT NAME PCB SERIAL*

NOTICE: PLEASE DO NOT USE POST OFFICE BOX NUMBERS

THANK YOU !

ASK ABOUT OUR HOT NEW GAME
THATS JUST RIGHT FOR THE
SUMMER TIME . . .

ATOMIC BOY

UNDER EXCLUSIVE LICENSE TO
NEWTRON INC. FROM IREM INC.

VS 10 YARD FIGHT
AMENDMENT WIRING

GA.	FUNCTION	WIRE / COLOR	PIN		WIRE / COLOR	FUNCTION	GA.
18	GND	GRN	1	A	• GRN	GND	18
18	GND	GRN	2	B		GND N/C	
			3	C			
			4	D	BLK WHT	LEFT COIN CNTR.	22
	* 2 PLAYER LT		5	E	BRN	JOYSTICK LEFT	22
	* 2 PLAYER RT		6	F	BRN WHT	JOYSTICK RIGHT	22
	* 2 PL SIDE PASS		7	H	BLK	SIDE PASS	22
22	1 PLAYER	GRY	8	J	ORG WHT	2 PLAYER	22
22	RIGHT COIN CNTR.	BLU RED	9	K			
22	NEG. SYNC	WHT	10	L	BLU WHT	COIN SW. RIGHT	22
18	+12	YEL RED	11	M	YEL RED	+12	18
			12	N			
22	AUDIO +	WHT RED	13	P	VIO	AUDIO –	22
	* 2 PL FOR PASS		14	R	WHT BLU	FORWARD PASS	22
22	VIDEO GREEN	GREEN	15	S	RED	VIDEO RED	22
			16	T	BLUE	VIDEO BLUE	22
	* 2 PLAYER DN		17	U		* 2 PLAYER UP	
22	JOYSTICK DOWN	GRY WHT	18	V	ORG	JOYSTICK UP	22
22	COIN SW. LEFT	RED WHT	19	W	YEL RED	SERVICE SW.	22
18	+5	RED	20	X	RED	+5	18
			21	Y			
18	GND	GRN	22	Z	GRN	GND	18

COMPONENT SIDE

* NOTE: THESE CABLES MUST BE ADDED TO THE CONNECTOR FOR THE VS. SOFTWARE VERSION.